

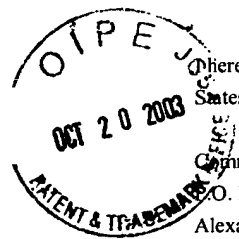


TRANSMITTAL FORM (to be used for all correspondence after initial filing)		Application Number	10/644,406
		Filing Date	August 19, 2003
		First Named Inventor	NIEMEYER, GUNTER D.
		Art Unit	2121
		Examiner Name	Unassigned
Total Number of Pages in This Submission		Attorney Docket Number	017516-002130US

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Return Postcard PTO/SB/08A & PTO/SB/08B
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual	Townsend and Townsend and Crew LLP Mark D. Barrish Reg. No. 36,443
Signature	
Date	October 15, 2003

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Signature		Date	October 15, 2003



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PATENT
Attorney Docket No.: 017516-002130US

On 10-15-03

TOWNSEND and TOWNSEND and CREW LLP

By: Edward Masinas
Edward Masinas

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

GUNTER D. NIEMEYER et al.

Application No.: 10/644,406

Filed: August 19, 2003

For: CAMERA REFERENCED
CONTROL IN A MINIMALLY
INVASIVE SURGICAL APPARATUS

Examiner: Unassigned

Art Unit: 2121

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR §1.97 and
§1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. In accordance with 37 CFR §1.98(d), copies of the references can be found in Application Nos. 10/163,626 and 09/373,678 (now U.S. Patent 6,424,885), filed June 6, 2002 and August 13, 1999 (Attorney Docket Nos. 017516-002120US and 017516-002110US), respectively. It is requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

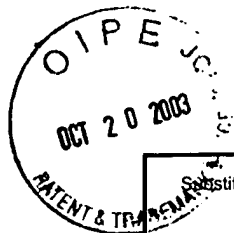
Applicant believes that no fee is required for submission of this statement. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



Mark D. Barrish
Reg. No. 36,443

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60049578 v1



INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known	
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		First Named Inventor	NIEMEYER, GUNTER D.
		Art Unit	2121
		Examiner Name	Unassigned
Sheet 1	of 5	Attorney Docket Number 017516-002130US	

U.S. PATENT DOCUMENTS+					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
	AA	3,818,284	06-18-1974	deVersterre et al	
	AB	3,905,215	09-16-1975	Wright	
	AC	3,923,166	12-02-1975	Fletcher et al.	
	AD	4,150,326	04-17-1979	Engelberger et al.	
	AE	4,349,837	09-14-1982	Hinds	
	AF	4,722,056	01-26-1988	Roberts et al.	
	AG	4,762,455	08-09-1988	Coughlan et al.	
	AH	4,833,383	05-23-1989	Skarr et al.	
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	AK	4,860,215	08-22-1989	Seraji	
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	AT	5,217,003	06-08-1993	Wilk	
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	BH	5,515,478	05-07-1996	Wang	
	BI	5,524,180	06-04-1996	Wang et al.	
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	BM	5,657,429	08-12-1997	Wang	
	BN	5,737,500	03-07-1998	Seraji et al.	
	BO	5,754,741	05-19-1998	Wang et al.	
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			Art Unit	2121	
			Examiner Name	Unassigned	
Sheet	2	of	5	Attorney Docket Number	017516-002130US

U.S. PATENT DOCUMENTS+					
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		Number Kind Code ² (if known)			
	BP	5,762,458	06-09-1998	Wang et al.	
	BQ	5,784,542	07-21-1998	Ohm et al.	
	BR	5,791,231	08-11-1998	Cohn et al.	
	BS	5,797,900	08-25-1998	Madhani et al.	
	BT	5,808,665	09-15-1998	Green	
	BU	5,810,880	09-22-1998	Jensen et al.	
	BV	5,814,038	09-29-1998	Jensen et al.	
	BW	5,815,640	09-29-1998	Wang et al.	
	BX	5,820,545	10-13-1998	Arbter et al.	
	BY	5,855,553	01-05-1999	Tajima et al.	
	BZ	5,855,583	01-05-1999	Wang et al.	
	CA	5,855,583	01-05-1999	Wang et al.	
	CB	5,859,934	01-12-1999	Green	
	CC	5,876,325	03-02-1999	Mizuno et al.	
	CD	5,878,193	03-02-1999	Wang et al.	
	CE	5,907,664	03-25-1999	Wang et al.	
	CF	5,911,036	06-08-1999	Wright et al.	
	CG	5,931,832	08-03-1999	Jensen	
	CH	5,971,976	10-26-1999	Wang et al.	
	CI	6,424,885	07-01-2002	Niemeyer et al.	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
	CJ	WO	95/01757					<input type="checkbox"/>
	CK	WO	97/29690					<input type="checkbox"/>
	CL	WO	97/43942					<input type="checkbox"/>
	CM	WO	97/43943					<input type="checkbox"/>

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60049578 v1



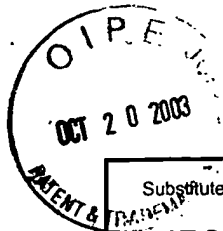
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Sheet	3	of	5	Attorney Docket Number	017516-002130US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CN	Adams et al., "Computer-assisted surgery," IEEE Computer Graphics & Applications, (May 1990) pp. 43-51.	
	CO	Alexander, III Impacts of telemation on modern society, Intl. Centre for Mechanical Sciences, 1st CISM-IFTOMM Symposium, on Theory and Practice of Robots and Manipulators, (Sep. 5-8, 1973), vol. II, pp. 122-136.	
	CP	Arai et al. "Bilateral control for manipulators with different configurations", IECON Int'l Conference on Industrial Electronics, Control and Instrumentation, (Oct. 22-26, 1984), vol. 1:pp. 40-45.	
	CQ	Baumann, R., Thesis No. 1734 entitled "Haptic interface for virtual reality based laparoscopic surgery training environment" for Master of Science in Computer and Systems Engineering, Rensselaer Polytechnic Institute, USA (1997) pp. 98-103.	
	CR	Bejczy et al., "Controlling remote manipulations through kinesthetic coupling" Computers in Mechanical Engineering (Jul. 1983) pp. 48-60.	
	CS	Borovoi, A.V., "Stability of a manipulator with force feedback," Izv. AN SSSR Mekhanika Tverdogo Tela, (1990) vol. 25, No. 1, pp. 37-44.	
	CT	Burdea et al., "Dextrous telerobotics with force feedback--an overview, Part 2: Control and implementation," Robotica (1991) vol. 9, pp. 291-298.	
	CU	Cohn, Michael C., http://www-bsac.eecs.berkeley.edu/ (Nov. 1, 1996) 14 pages.	
	CV	Colgate, J. Edward, "Power and impedance scaling in bilateral manipulation," Proceedings of 1991 IEEE Intl. Conf. on Robotics and Automation, Sacramento, CA, (Apr. 1991) pp. 2292-2297.	
	CW	Fisher, S.S., "Virtual interface environment," IEEE/AIAA 7th Digital Avionics Systems Conference, (Oct. 13-16, 1986) Ft. Worth, Texas, pp. 346-350.	
	CX	Fu, et al., "Robotics: control, sensing, vision, and intelligence," McGraw-Hill Book Company, (1987), Ch. 2 & 5, pp. 12-265.	
	CY	Fukuda et al., "A new method of master-slave type of teleoperation for a micro-manipulator system" IEEE Microrobots and Teleoperators Workshop (1987), 5 pages.	
	CZ	Funda, et al., "Constrained cartesian motion control for teleoperated surgical robots," IEEE Transactions on Robotics and Automation, (Jun. 1996) vol. 12, No. 3, pp. 453-465.	
	DA	Furuta et al., "Master-slave manipulator based on virtual internal model following control concept," IEEE Int'l. Conference on Robotics and Automation, Raleigh, North Carolina, (Mar. 31-Apr. 3, 1987) vol. 1, pp. 567-572.	
	DB	Green et al., "Mobile telepresence surgery," 2nd Annual Intl. Symposium on Medical robotics and Computer Assisted Surgery, Baltimore, Maryland, (Nov. 4-7, 1995) pp. 97-103.	
	DC	Hannaford et al., "Experimental and simulation studies of hard contact in force reflecting teleoperation," IEEE (1988) pp. 584-589.	

Examiner Signature		Date Considered	
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¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/644,406
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Sheet	4	of	5

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Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	DD	Hill et al., "Telepresence surgery demonstration system," IEEE 1050-4729/94, pp. 2302-2307, 1994.	
	DE	Hurteau et al., "Laparoscopic surgery assisted by a robotic cameraman: Concept and experimental results," I444 Intl. Conf. on Robotics and Automation, (May 8-13, 1994) pp. 2286-2289.	
	DF	Inoue et al., "Six-axis bilateral control of an articulated slave manipulator using a Cartesian master manipulator," Advanced Robotics, (1990) vol. 4, No. 2, pp. 139-150.	
	DG	Jones et al., "Next-generation 3D videosystems may improve laparoscopic task performance," Interactive Technology and the New Paradigm for Healthcare, (1995) Ch. 25, pp. 152-160.	
	DH	Kazerooni et al., "The dynamics and control of a haptic interface device," IEEE Transactions on Robotics and Automation, (Aug. 1994) vol. 10, No. 4, pp. 453-464.	
	DI	Kazerooni, H., "Human/robot interaction via the transfer of power and information signals, Part I: Dynamics and control analysis," IEEE, CH2750, (8/89) pp. 1632-1640.	
	DJ	Kim et al., "Active compliance and damping in telemanipulator control," Jet Propulsion Laboratory New Technology Report, JPL & NASA Case No. NPO-17969/7466, (Apr. 1991) vol. 15, No. 4, Item 40, pp. i-14a.	
	DK	Komada et al. "Bilateral robot hand based on estimated force feedback" Proceedings IECON '87, Cambridge, MA, November 3-6, 1987, pp. 602-607.	
	DL	Kwoh, et al., "A robot with improved absolute positioning accuracy for CT guided stereotactic brain surgery," IEEE Transactions on Biomedical Engineering, (Feb. 1998), vol. 35, No. 2, pp. 153-160.	
	DM	Lazarevic, "Feasibility of a Stewart Platform with Fixed Actuators as a Platform for CABG Surgery Device" Master's Thesis, Columbia University, Department of Bioengineering, pp. 1-45.	
	DN	Madhani, Akhil Jiten, Dissertation entitled Design of Teleoperated Surgical Instruments for Minimally Invasive Surgery, Mass. Institute of Tech. (©Feb. 1998)	
	DO	Massie et al. "The phantom haptic interface: a device for probing virtual objects," Proceedings of the ASME Winter Annual Mtg., Symposium on Haptic Interfaces for Virtual Environment and Teleoperator Systems, Chicago (Nov. 1994) pp. 1-7.	
	DP	Mitsubishi et al., "A tele-micro-surgery system with co-located view and operation points and a rotational-force-feedback-free master manipulator," 2nd Annual Intl. Symposium on Medical robotics and Computer Assisted Surgery, Baltimore, Maryland, (Nov. 4-7, 1995) pp. 111-118.	
	DQ	Neisius et al., "Robotic manipulator for endoscopic handling of surgical effectors and cameras" Proceedings of the First International Symposium on Medical Robotics and Computer Assisted Surgery, Vol. 2, Workshop (Part I & II)- Session VI, pp. 169-175.	
	DR	Neisius et al., "Robotic manipulator for endoscopic handling of surgical effectors and cameras," 1st Intl. Symposium on Medical Robotics and Computer Assisted Surgery, Workshop (Part I & II)-Session VI, Pittsburgh, Pennsylvania (Sep. 22-24, 1994) vol. 2, pp. 169-175.	
	DS	Sastry et al., "Millirobotics for remote, minimally-invasive surgery," Proceedings of the Intl. Workshop on Some Critical Issues in Robotics, Singapore (Oct. 2-3, 1995) pp. 82-98.	

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	DT	Sastry, Shankar, http://robotics.eecs.berkeley.edu/ (Nov. 1, 1996) 8 pages.		
	DU	Taubes, G., "Surgery in cyberspace," Discover (Dec. 1994) vol. 15, No. 12, pp. 84-94.		
	DV	Thring, "Robots and telechairs: Manipulators with memory; remote manipulators; machine limbs for the handicapped" (1993) M.W. Thring/Ellis Horwood Ltd. pp. 9-11, 122-131, 194-195, 235-257, 274-279.		
	DW	Thring, M.W., "Robots and telechairs: manipulators with memory; remote manipulators; machine limbs for the handicapped," (1983) Ch. 5:pp. 8-11; Ch. 5:122-131. Ch. 7:194-195; Ch. 8:236-279.		
	DX	Trevelyan et al., "Motion control for a sheep shearing robot," First Int'l. Symposium, Robotics Research, Edited by M. Brady and R. Paul, MIT Press, Cambridge, MA, (1984) Chapter 2, pp. 177-190.		
	DY	Vibet, C., "Properties of master-slave robots," Motor-Con '87, Hannover, FRG, (Apr. 2-4, 1987), pp. 309316.		

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